CLAIMS:

1. Receiver for processing a received signal (SEQ), said receiver being multimode, characterized in that it comprises:
   - a single RF chip for processing the received signal (SEQ) in any mode, said chip comprising a spreading section (SPREAD_SEC) for spreading and down-converting to baseband a received signal (SEQ) and a channel filtering section (CH_SEC) for DC offsets rejection on a received signal (SEQ), and
   - a single baseband chip (BB) comprising despreading means (DSPR) for despreading a spread signal (SEQ).

2. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the spreading section (SPREAD_SEC) is adapted to produce a spread spectrum oscillator (LO) and a spreading sequence (PN), in order to expand the bandwidth of a received signal (SEQ).

3. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the spreading section (SPREAD_SEC) further comprises unique rejection means (LPF3) for all the modes for suppressing the adjacent carrier frequencies of the associated received signals (SEQ).

4. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the channel filtering section (CH_SEC) is common for all the modes.

5. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized. in that the channel filtering section (CH_SEC) comprises:
   - a block of low-noise amplifier (LNA) and associated mixers (M1&M2) for each mode, and
   - unique first rejection means (HPF1) for rejecting DC offsets on a spread received signal (SEQ) for any mode

6. Receiver for processing a received signal (SEQ) as claimed in claim 5, characterized in that the channel filtering section (CH_SEC) further comprises adding means (ADD1,ADD2) for redirecting a spread received signal (SEQ) coming from a block of low-noise amplifier (LNA) and associated mixers (M1&M2) to the first rejection means (HPF1).

7. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the baseband chip (BB_INT) further comprises:
   - channel filter coefficient banks (FIR) with associated filters (BB_LPF) for each mode for rejecting adjacent carrier frequencies on the associated spread received signal (SEQ), and
   - a matching filter (IIR) for producing the same distortion of a spread signal (SEQ) on a corresponding despreading sequence (PN).

8. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the despreading means (DSPR) comprise:
   - a single multiplier (M), and
   - a single correlator with integration and dump means (I&D).

9. Receiver for processing a received signal (SEQ) as claimed in claim 1, characterized in that the baseband chip (BB_INT) further comprises synchronization means (SYNC) for synchronizing a spread signal (SEQ) with a corresponding despreading sequence (PN).

10. A method for receiving a signal (SEQ) in any mode, characterized in that it comprises the steps of:
   - spreading and down-converting the received signal (SEQ) to baseband,
   - rejecting the DC offsets on the received signal (SEQ), and
   - despreading the spread signal (SEQ).

11. A method for receiving a signal (SEQ) as claimed in claim 10, characterized in that it comprises also a step of producing a spread spectrum oscillator (LO) and a spreading sequence (PN) in order to expand the bandwidth of the received signal (SEQ).

12. Mobile phone comprising a receiver as claimed in any one of the claims 1 to 9.